

# **Domain**

The Domain of a function is the same thing as:

1. Independent Variable
2. X-values
3. Input values

There are two types of domains:

1. Theoretical Domain
2. Practical Domain

## **Theoretical domain:**

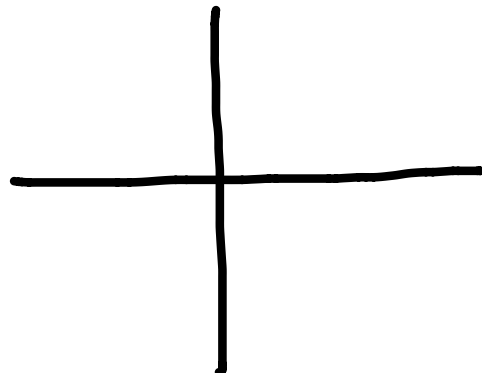
Find ALL possible independent (x-values) that work in the equation. Use a graph to help you to state the domain of the function.

## **Practical Domain:**

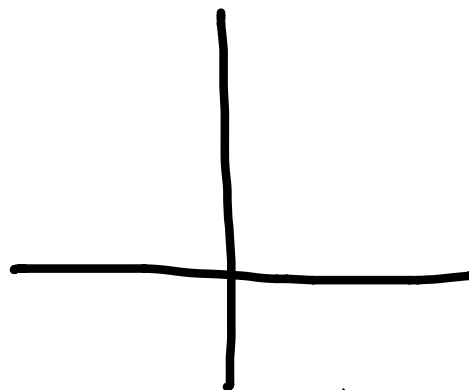
Find ALL the independent values (x-values) that makes sense in the WORD PROBLEM only. If the function is from a height vs. time word problem, the you can not have negative times(x-values).

Example: State the domain for the following functions:

$$\textcircled{1} f(x) = |x + 5|$$



②  $f(x) = 3(4)^x$



③ In a height as a function of time word problem, the equation would be  $h(t) = -16t^2 + 40t + 2$



